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Claims

[c1] 1. A method for making a porous electrode, comprising:
sintering a layer of electrically conductive material to form a sintered porous support having a porosity of greater than about 10%; and
infiltrating said sintered porous support with a catalyst.

[c2] 2.A method for making a porous electrode as in Claim 1, wherein the porous electrode has a mean pore size of about 2 to about 13 microns.

[c3] 3.A method for making a porous electrode as in Claim 1, wherein said material is nickel, cobalt, titanium, zirconium, hafnium, niobium, tungsten, carbon, iron, or mixtures or alloys thereof.

[c4] 4.A method for making a porous electrode as in Claim 1, wherein said sintered porous support has a porosity greater than about 40%.

[c5] 5.A method for making a porous electrode, comprising:
coating an electrically conductive material with a catalyst;
forming a layer of said coated material; and
sintering said layer to form the porous electrode,

wherein said porous electrode has a porosity greater than about 20%.

[c6] 6.A method for making a porous electrode as in Claim 5, wherein said porous electrode has a porosity greater than about 40%.

[c7] 7.A method for making a porous electrode as in Claim 6, wherein said porous electrode has a mean pore size of about 2 to about 13 microns.

[c8] 8.A method for making a porous electrode as in Claim 5, wherein said material is nickel, cobalt, titanium, zirconium, hafnium, niobium, tungsten, carbon, iron, or mixtures or alloys thereof.

[c9] 9.A method for making a porous electrode, comprising coating an electrically conductive, porous support with a solution of catalyst precursor; and
converting said catalyst precursor to a catalyst.

[c10] 10.A method for making a porous electrode as in Claim 9, wherein the electrode has a porosity greater than about 20% by volume.

[c11] 11.A method for making a porous electrode as in Claim 9, wherein the porous electrode has a mean pore size of about 2 to about 13 microns.

[c12] 12.A method for making a porous electrode as in Claim 9, wherein said material is nickel, cobalt, titanium, zirconium, hafnium, niobium, tungsten, carbon, iron, or mixtures or alloys thereof.

[c13] 13.A method for making a porous electrode as in Claim 9, wherein said sintered porous support has a porosity greater than about 40% by volume.